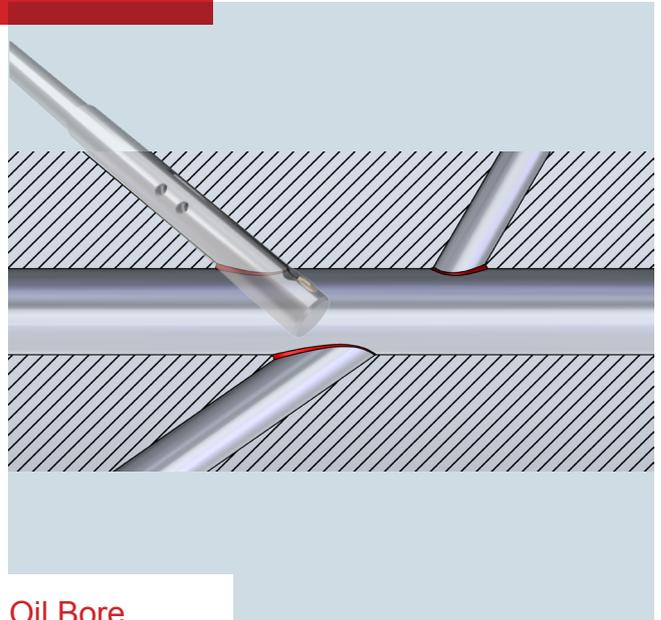
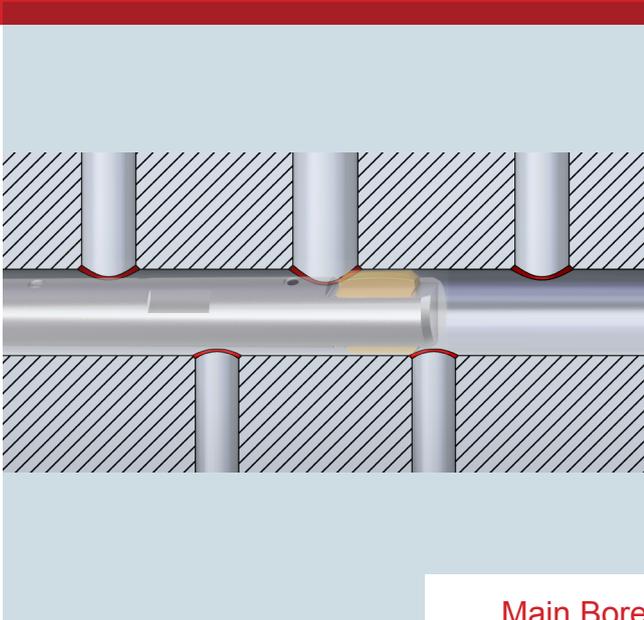
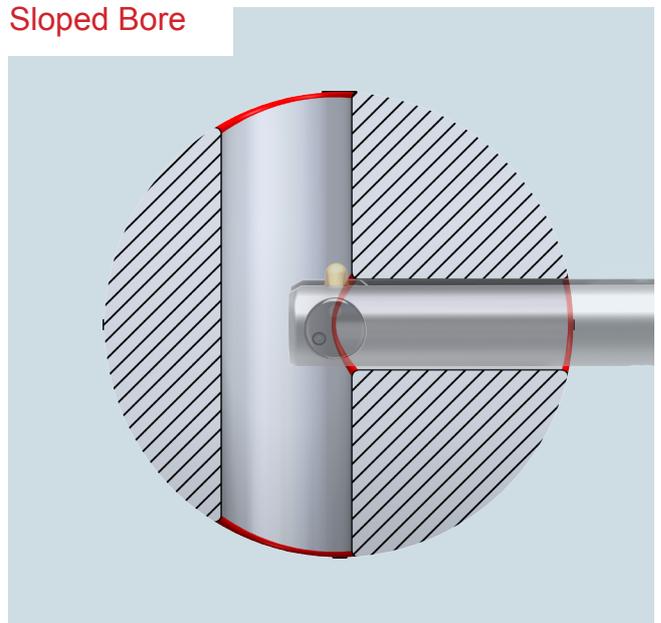
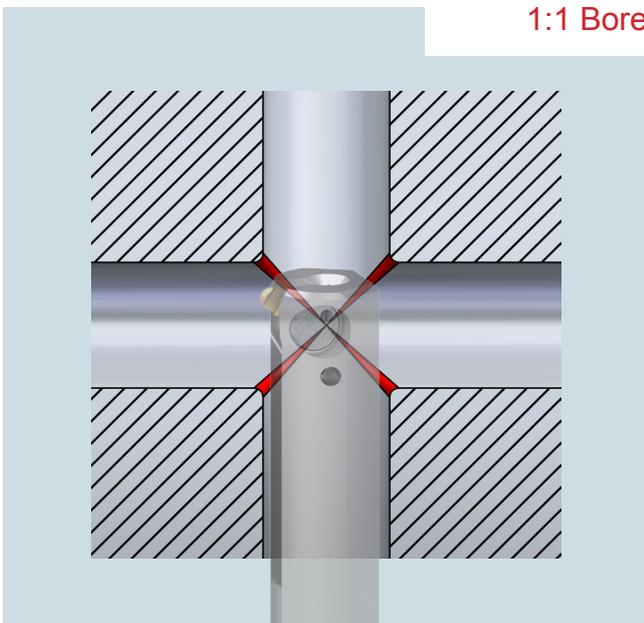


X BORES

Deburring of cross bores.

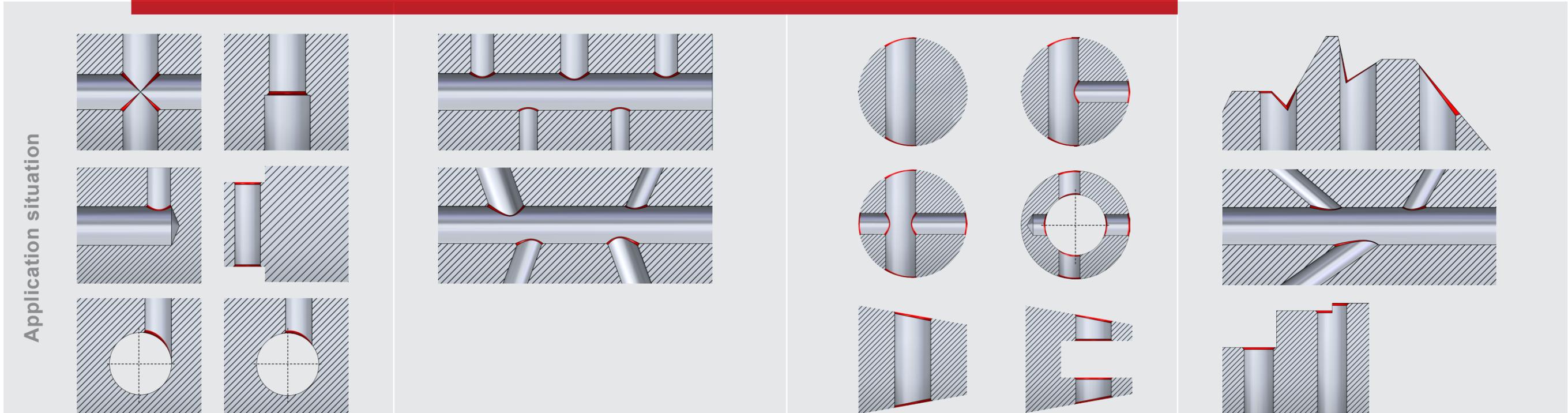


Main Bore Oil Bore
1:1 Bore Sloped Bore





With X-BORES HEULE takes up the challenge to provide solutions for the automated deburring of cross bores. Based on 4 different function principals we develop individual and optimized customer solutions. All systems are chip making tools that work with defined cutting edges to ensure a high process capability.



Challenge

Bores with an identical or almost identical diameter crossing each other, bores which merge into one another, crossing bores with center axis offset and interfering edges that shield the surface to be deburred indirectly.

The main bore is a central bore where several cross bores lead in. The cross bores usually have various diameters and lead into the main bore in different angles.

Sloped, uneven or even surfaces and crossing bores with regard to the penetration angle.

Beside the classic oil bore, this category covers very complex intersecting bores one usually finds in tothing or steps and intersecting bores with a very flat penetration angle.

Solution approach

The 1:1 Ratio Bore Tool

With its COFA-X-System combined with today's machine capabilities HEULE possesses a new solution. This method enables the machining of contours that were inconceivable some years ago.

The Main Bore Tool

The Main Bore Tool (DD) is used for the deburring of cross bores leaving sharp edges. It penetrates through the main bore and deburrs the cross bores. In one single pass, several cross bores are machined right at the burr base.

The Universal Efficiency Champion

COFA removes burrs on the front and back of a drilled through-hole on even and uneven surfaces in a single cycle. It radially removes the burrs without requiring the workpiece to be turned or the spindle to be stopped. This is why it is suitable for the deburring of cross bores.

The Cross Bore Tool

The CBD (Cross Bore Deburring Tool) has been developed to deburr oil bores. The tool penetrates the cross bore and deburrs the bore intersection in an absolute process-safe manner.



Have you got an unsolved deburring issue you would like to resolve with us?

Any viable solution begins with a clear description of the application. Please define your demands and expectations in a comprehensive and detailed manner. Please focus therefor on the following important aspects:

- Description of the present deburring process
- Details of the bore and the application
- Description of the environment: Machine, clamping, fixture, spatial conditions, interfering edges
- Number of bores to be deburred
- Cycle time? Present solution? Present time (Actual/Target)?
- Is there any function assigned to the deburred surface?
- Description of the desired final result / target description
- What has to be observed imperatively when designing the new deburring process?

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